CORE
Metadata, citation and similar papers at core.ac.uk
Provided by Hamline University: DigitalCommons@Hamline

Hamline University
DigitalCommons@Hamline

School of Education Student Capstone Theses and Dissertations

School of Education

2011

Low-literacy adult English language learners: oral recall and recasts

Celia Martin-Mejía
Hamline University

Follow this and additional works at: https://digitalcommons.hamline.edu/hse_all

 Part of the Education Commons

Recommended Citation
Martin-Mejía, Celia, "Low-literacy adult English language learners: oral recall and recasts" (2011). *School of Education Student Capstone Theses and Dissertations*. 460.
https://digitalcommons.hamline.edu/hse_all/460

This Thesis is brought to you for free and open access by the School of Education at DigitalCommons@Hamline. It has been accepted for inclusion in School of Education Student Capstone Theses and Dissertations by an authorized administrator of DigitalCommons@Hamline. For more information, please contact digitalcommons@hamline.edu, lterveer01@hamline.edu.

LOW-LITERACY ADULT ENGLISH LANGUAGE LEARNERS: ORAL RECALL AND RECASTS

By

Celia Martin Mejía

A capstone submitted in partial fulfillment of the requirements for the degree of Master of Arts in ESOL.

Hamline University

Saint Paul, Minnesota

July 9th, 2011

Primary Advisor, Bonnie Swierzbin
Secondary Advisor, Julia Reimer
Peer Reviewer, Ingrid Johnson

Copyright by

CELIA MARTIN MEJIA

2011

All Rights Reserved

ACKNOWLEDGEMENTS

Thank you first and foremost to my advisor Bonnie Swierzbin, my secondary advisor Julia Reimer, and my peer reviewer and good friend Ingrid Johnson. Thank you to Elaine Tarone, Martha Bigelow and Kit Hansen for sharing with me not only expertise but many original documents. Thank you to my husband José Agustín Mejía Camacho for your endless patience and encouragement. To my parents Raymond and Elsie Martin for helping me see this through. To Kara Schommer, Brenda Anfinson, Yvonne Lerew and Teresa Ortiz for opening your doors to this study. To my Somali interpreter Mohamud Aden for donating time and expertise to help me more deeply understand my participants. To Erica Lehner, Brooke Easton, Carol Margolis and Ahri Lee for being my cheerleaders and giving me the fortitude and encouragement to continue. Lastly to all the friends and family who donated their precious time, advice, and expertise to edit, guide, or otherwise help me complete this exciting project.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE: INTRODUCTION

In the adult English for Speakers of Other Languages (ESOL) programs where I have taught, I have seen educators struggle with error correction of low-literacy ESOL learners. Language educators often employ a variety of error correction techniques including written, oral, visual and kinesthetic prompts in an effort to encourage more target-like output by ESOL students. However, educators often rely heavily on forms of oral correction when working with low-literacy ESOL learners. Many educators use recasts, the immediate oral reformulation of a learner's utterance to meet more accepted target-like norms, as a method of encouraging student self-correction by focusing students' attention on non-target-like components. While oral feedback is a popular method of correction for low-literate ESOL learners, recent research has shown that low-literate Somali-speaking adolescents have a lowered ability to perceive and incorporate oral recasts of morpho-syntactic corrections in their second language (L2) (Tarone, Bigelow & Hansen, 2009b; Tarone, Bigelow & Hansen 2009a; Tarone & Bigelow, 2005; Bigelow, Delmas, Hansen & Tarone, 2005).

As much of the feedback and correction is done orally for adult low-literacy students in ESOL classes, it is important to know how learners process, retain and incorporate oral L2 corrections into their interlanguage. Thus, further research into how adult low-literate ESOL students process information and acquire new languages is essential. This study

explores the relationships between adult English Language Learners' (ELL) literacy level, oral recasts of learner-generated question formations, and recall of researcher-generated question formations in order to investigate the impact of low literacy on second language oral proficiency.

Adult Literacy in the ESOL Classroom

Student: “He looking bus money?”

Teacher: “*Is* he looking for bus money?”

Student: “Yeah… I looking bus money?

Variations of this conversation routinely play out in adult ESOL classes. A common strategy of ESOL teachers is to recast information orally in the hopes that students will hear the corrections and adapt their speech to fit native-English-speaker norms. Noticing changes made in recasted utterances is often more difficult for low-literacy adults than for learners who are literate (Tarone, et al., 2009b). Low-literacy adult students often behave like Roberto[1], who is a low-literacy student in an intermediate level adult ESOL class. He speaks with little hesitation in English yet he labors with a pencil to write his name and is unable to point to today’s date on a simplified calendar. When he does write, his letters run together with no breaks between words, and he often takes convenient “bathroom breaks” or slips out when the class is asked to read or write short sentences in English.

---

[1] All names in this study have been changed to pseudonyms to protect identity.

Roberto is far from alone in his struggles. According to UNESCO's 2008 International Literacy Statistics, one out of every five adults in the world is considered illiterate. According to the National Assessment of Adult Literacy's (NAAL) study published in 2009, 11 million adults in the United States are illiterate in English. In Minnesota, Adult Basic Education (ABE) programming addresses the needs of the adult learners who function at less than a 12th grade level of education in a wide variety of areas including literacy and English language ability. According to the Overview of Adult Basic Education (ABE) in Minnesota FY 2010 (Shaffer, 2010) of the over 78,000 adult students that participate in ABE programs in Minnesota, 42% are enrolled in ESOL classes. Most ESOL programs offer low-literacy classes or have low-literacy students mixed in across all levels of ESOL class offerings.

Due to the demand for adult ESOL literacy classes, educators are constantly looking for new insights into how to best meet student needs. Little research has been done on adult literacy students and what normal progression for adult ELL literacy looks like or what morpho-syntactic aspects are the most difficult for adult low-literate students to learn. One recent study done by Tarone, et al., (2009b) demonstrates that low-literacy adolescent and young adult ESOL students have difficulty noticing morpho-syntactic parts of speech, such as *–ing* on the present participle and the use of auxiliary verbs in oral recasts. Castro-Caldas and Reis (2000) found that participants illiterate in their native language used different cognitive processing pathways in their L1 and relied more heavily on semantics than literate participants when asked to do a variety of oral phonological tasks. What does this ultimately mean for the use of oral correction with

adult low-literacy ESOL learners who are working on more discrete grammatical areas of oral language, such as question formation?

Background of the Researcher

As a teacher of adult ESOL classes, I am particularly interested in finding out how to best meet students' needs. Because classes tend to be multi-level and students' literacy backgrounds can vary tremendously, I am acutely interested in finding ways to incorporate new teaching techniques that support low-literacy students while minimizing the effect of singling out low-literacy adults in a mixed classroom setting. I would like to learn more about the language-processing abilities of adult low-literacy ESOL students and how to teach to their strengths and best support them through their particular challenges.

Guiding Questions

Question formation in English utilizes a multipart modification of information by employing inversion, question words, auxiliary verbs as well as changing verb forms. Thus, question formations provide a rich opportunity to measure students' level of language acquisition as well as for multiple angles of correction. With this in mind, I will use question formations to answer the following questions about language acquisition, literacy level, as well as recall and recast perception. Ultimately, I aim to find out how accurately low-literacy adult ESOL students recall researcher-generated question

formations, as well as recall corrective oral feedback on student-generated question formations by focusing on the following questions:

- What is the effect of literacy level on accuracy in recall activities that use elicited imitation to produce question formations?
- How accurately do low-literacy adult ELLs recall oral corrective feedback (recasts) in learner-generated question formations?

Chapter Overviews

In Chapter One I introduced my research on adult ELL literacy by establishing the purpose, significance and need for this study. The context of the study was briefly introduced as was the background of the researcher. In Chapter Two, I provide a review of the literature relevant to adult literacy, second language acquisition, noticing and learning, and prior research using recall/recast methods. Chapter Three contains a description of the research design and methodology that guides this study, and the results are presented in Chapter Four. In Chapter Five I reflect on the data collected. I also discuss the limitations of the study, implications for further research, and recommendations for teaching adult low literacy students.

CHAPTER TWO: LITERATURE REVIEW

The purpose of this study is to examine how low-literate adult ELL learners respond to recall and recast activities using question formations. Specifically, what is the effect of literacy level on accuracy in recall activities that use elicited imitation to produce question formations? Furthermore, how accurately do low-literacy adult ELLs recall oral corrective feedback (recasts) in learner-generated question formations? This study was done with the intention that educators can use this information to become more aware of the second language oral proficiency ability of similar populations of students and create a more comprehensive understanding of the impact of low literacy on adult ELLs.

This chapter presents an overview of definitions of literacy and illiteracy, oral processing strategies of literate and illiterate adults, and the impact of literacy on second language learning. It includes an overview of learners' ability to notice corrections and Schmidt's Noticing Hypothesis, corrective feedback, and the order of question acquisition in English. Finally, it outlines the need for research on adult English-language literacy learners.

Definitions of Literacy and Illiteracy

Illiteracy has many different interpretations and the term is frequently manipulated to serve varying political needs (Carr-Hill & Pessoa, 2008). Carr-Hill and Pessoa in

UNESCO's 2008 Literacy Report define illiteracy in a functional manner which includes not just an individual's inability to read and write, but also crucially points out a person's inability to read, write, or understand even brief minimal statements about his or her own life experiences in a written form.

Focusing on a number of important characteristics of basic literacy, UNESCO (2008) defines literacy more thoroughly as

> the ability to identify, understand, interpret, create, communicate and compute using printed and written materials associated with varying contexts. Literacy involves a continuum of learning in enabling individuals to achieve his or her goals, develop his or her knowledge and potentials, and participate fully in the community and wider society (p. 25).

The inclusion, in UNESCO's definitions of literacy, of texts from different contexts that include information familiar to the subject and that are encountered daily is an important insertion. This addition calls attention to the fact that texts are not limited to purely academic situations but are frequently part of people's daily environment in literate societies. Everyday texts could include food or clothing labels, signage, instructions, numbers, or maps. Incorporating texts that are not necessarily created for academic environments, but with which individuals may be familiar, opens the door to measuring the abilities of even very low-literate populations that might have been missed if they had only used standard academic literacy tests. This important inclusion enables researchers to extend the continuum of what we define as literacy.

Tarone, Bigelow and Hansen (2009b) expand the definition of literacy from simply the ability to read and write about daily activities and contexts to the additional ability to communicate through "multimedia such as computers, video or the Internet" (p.7).

While this study shall not include multimedia literacy as criteria for literacy, this definition points to crucial changes within our global society that increasingly relies on technology. Workplaces are using the Internet to post jobs and review applications. Workplaces may also use updated machines or even punch-cards that require a basic understanding of computer technology. As more and more jobs require technological proficiency for even entry-level positions, educators are doing a disservice to low-literate learners if they focus purely on printed text and do not also include basic computer literacy.

Literacy and illiteracy are not necessarily distinct or polar categories but rather can be conceptualized as a continuum of understanding. Individuals can be more or less literate than one another, or have varying degrees of literacy; thus many people do not fit perfectly into either category. Second-language learners are not necessarily considered illiterate if their first language does not have a written form, has an uncommon form, or has only developed a written form recently, such as Hmong (Parrish, 2004). These individuals are considered pre-literate. Illiterate individuals speak a language that has a written form but they are not able to read or write it. Individuals who are able to read and write in their native language which uses a non-Roman alphabet are considered literate, as the process of understanding that a sound or a word can be represented by a written symbol is a literacy skill that only has to be learned once. Thus, they can more easily transfer this knowledge of print to help facilitate the acquisition of a Roman alphabet (Parrish, 2004).

The United Nations National Household Survey Capability Program, as quoted by Herriman (1999), introduces the concept of low-literacy as an in-between ground which links literacy and illiteracy or pre-literacy. Low-literate individuals may not be able to read and understand an entire text in their native or second language, but can recognize everyday texts in context such as signs or documents and are able to perform simple reading and writing tasks such as "signing their name or recognizing the meaning of public signs" (p. 175). In an effort to delimit the definition of literacy for this paper, my definition will be adapted from Herriman's (1999) article. Literacy for the following study will be defined as the ability to decode, comprehend, and locate information in a text in the speaker's native language or English, as well as the ability to write in either language.

Literacy and Mental Processing

Processing Strategies

Native language (L1) literacy directly affects an individual's cognitive processing and overall organizational structure of the brain (Joy, 2000). The process of gaining L1 literacy is defined by Castro-Caldas and Reis (2000) as the facilitation of a learner's implicit awareness of the phonological process and making it explicit and conscious. This awareness of phonological arrangement is fostered through learning the declarative knowledge of written language, which is most often taught in educational settings. By exposing learners to the underlying structures of language through the use of symbols in print, literacy initiates learners' meta-linguistic reflection as well as self-monitoring

techniques (Bigelow, Delmas, Hansen & Tarone, 2006). In other words, L1 literacy makes unconscious linguistic patterns conscious and facilitates learners' comprehension strategies by creating additional mental networks which they can then utilize. A simple example of this could be the understanding that the word *table* starts with the letter *t*. The letter *t* can also be written as *T* or 𝒯 and can be also isolated as a sound in the word *talk* or the word /weɪkt/ (Caldas & Reis, 2000). By exploiting the visual-spatial and audio-temporal mechanisms of the brain, linguistic mental networks can help learners decode, comprehend, cluster and store information as well as make faster and more frequent connections between a variety of concepts and words (Caldas & Reis, 2000).

Benefits of Literacy

Reis and Castro-Caldas (1998) also found that individuals literate in their L1 have an increased ability in their L1 to memorize phonologically related pairs (e.g., words that start with the phoneme /k/) and to recite back lists of pseudo-words (words that are similar to real words but lack meaning, e.g., *wable* instead of *table*), while illiterate participants struggled. Importantly, illiterate participants seemed to base most of their processing on semantics and often turned pseudo-words into real words as they recited them back. Literate participants in the study appeared to use explicit phonological analysis and knowledge of morphology in addition to semantic knowledge to complete tasks.

These additional linguistic processing strategies also seem to help literate learners more quickly decipher color as well as black-and-white two-dimensional drawings and photographs, whereas illiterate participants took longer to identify black-and-white drawings and photographs as opposed to color images (Reis, Faísca, Ingvar & Petersson, 2006). As reading and writing skills are based on the development of visual and visual-motor abilities, the capacity to decode, encode, and comprehend 2D symbolic images also seems to benefit the identification of other 2D objects such as pictures or photographs (Reis et al., 2005).

These findings are supported by PET scans that corroborate the idea of increased brain activation in literate learners by showing that more places of their brains light up while doing set tasks such as repeating words and pseudo-words than do those of illiterate individuals (Castro-Caldas, Petersson, Reis, Stone-Elander & Ingvar, 1998). Other studies have shown that illiterate individuals not only have more compartmentalized mental storage areas, but they have reduced fluency and capacity to remember novel or unfamiliar words, as well as smaller overall vocabularies when compared to literate individuals (Castro-Caldas, et al., 1998; Cunningham & Stanovich, 2001; Tarone, et al. 2009a). Low-literate individuals also have been shown to have difficulty with noticing oral corrections in an L2 (negative oral feedback) and are subsequently unable to correctly modify their original statements (Tarone et al., 2009a).

Literacy and Second Language Learning

Noticing and Recasts

As grammar and question-formation are learned in a specific sequence (Pienemann, et al. 1988; Philp, 2003; Tarone, et al. 2009a; Tarone, et al. 2009b), an important indicator that learners are ready for the next level of question formation is their ability to notice gaps in their interlanguage. The process of noticing is the ability to focus on linguistic features available in either positive or negative input (Egi, 2010). Once a learner notices a mismatch between their output and the target language, the learner may be able to correct their output and tailor it to meet more native-like norms (Egi, 2010). According to Schmidt's Noticing Hypothesis (1995), individuals are able to learn only what they can notice from comprehensible input: "the detection, processing and storage of input… is conditional upon noticing" (Philp, 2003, p. 101). Learners' inability to notice input beyond their level of acquisition may explain why learners do not respond to all corrections that educators make to learner output (Philp, 2003).

Educators frequently use recasts to prompt learner self-correction and to encourage noticing. Recasts reformulate learner-generated output by changing one or more elements in order to conform to native-like norms (Mackey & Philp, 1998; Philp, 2003). Oral recasts are a listener's modification of a learner's original utterance, generally made immediately following the learner's non-native-like articulation, changing one or more aspects to meet target-like norms, while maintaining the central meaning of the utterance (Mackey & Philp, 1998). Since oral recasts must be stored in an individual's working memory, the aspects of oral recasts that a learner is able to recall

immediately and produce orally can be used to evaluate what has been noticed (Philp, 2003). Evidence of the learner's ability to notice the changes made to the original utterance may be demonstrated by the learner's attempt to repair his or her original utterance using the target-like modifications. Research with ESOL learners has found that the ability to notice recasts may be influenced by a number of things such as the learner's proficiency level, the length of the recast, the number of changes made to the recast, individual differences in working memory ability, and the saliency of the recast (Philp, 2003; Tarone, et al., 2009b).

Literacy and Oral Language

Tarone and Bigelow (2005), Bigelow, Delmas, Hansen and Tarone (2006), and Tarone et al. (2009a, 2009b) studied the ability of adolescent and young adult Somali English-language learners to recall and produce recasted input, to discover the impact of literacy on language acquisition. Their numerous studies supported previous research findings performed with monolingual non-literate participants (Castro-Caldas et al., 1997, 1998; Castro-Caldas & Reis, 2000), and supplemented studies on recasted information done by Mackey and Philp (1998) and Philp (2003) by adding critical insight into the impact of literacy on second language acquisition.

Tarone et al. (2009a) found that learners' ability to identify and modify speech based on oral corrections to syntax and morphology was related to learners' level of literacy after controlling for level of acquisition as measured by Pienemann et al.'s 1988 stages of question formation. Although the Castro-Caldas et al. study (1998) of monolingual

Portuguese-speaking participants showed that the ability to recall and recast oral syntactic or morphological modifications was reduced according to the length of the recast (longer recasts were more poorly remembered by illiterate participants), Tarone et al.'s 2009 study showed no correlation between length and recall-recast ability. They found that literacy level was a stronger indicator of the number of modifications recalled, rather than the length of the oral statement. These researchers found that the more literate the participant, the more modifications they were able to recall and apply to their recast. Therefore, they concluded that literacy is directly tied to oral memory. Specifically, improved oral memory can facilitate language learning because it aids in the ability to recall long pseudo-words — or unfamiliar new words— for increased periods of time, or hold them in the short-term memory, which gives learners an opportunity to request or look for meanings (Tarone & Bigelow, 2005).

Also noteworthy is Tarone and Bigelow's further assessment in 2005 (as well as Bigelow et al., 2006) that literacy supports the awareness to notice and compare differences in oral recasts. Not only does literacy increase phonological awareness, but it increases the ability to notice syntactical and morphological differences in oral statements. They attribute this enhanced ability to notice differences to the ability of mentally visualizing letters and combinations of letters and words (Tarone & Bigelow, 2005). Ravid and Tolchinsky (2002, as cited in Tarone & Bigelow, 2005) assert that illiterate speakers first focus on the semantics and meaning of language. As they become

more literate, these speakers begin to develop increased cognitive control of language due to an enhanced analytical awareness of phonemes, syllables and morphemes based on their written representations.

Though Tarone, Bigelow and Hansen's study was a partial duplication of Philp's (2003) study on recasts with university level students, their findings differed from Philp's due to their use of low-literate participants and younger age group. Tarone, Bigelow and Hansen found that the length of recasts was not a factor in their low-literate participants' ability to recall information. They surmised that their differing findings may have been caused by the different processing strategies that low-literate versus highly literate individuals utilize. They suggested that their participants may have capitalized on an ability to use rhyme, rhythm or other semantic cues to recall differing lengths of recasted information more accurately than Philp's highly literate participants. They found that the participant's literacy level was more important to correctly recall and modify recasted information than the length of recast. In 2009(b) Tarone, Bigelow and Hansen found that their low-literate participants seemed to struggle most with the recasts that focused on lexical and morpho-syntactic features of speech. Importantly, low- literacy participants were able to recall and modify semantic changes but struggled with changes which concentrated on morpho-syntax.

Order of Question Acquisition

ELLs acquire grammatical forms of language through a consistent and predictable trajectory, according to Pienemann et al.'s (1988) study of the order of acquisition of

English by adults and children. While progression may not happen at the same rate for all students, stages of development cannot be omitted, as each level is built on knowledge obtained at previous levels. According to Pienemann et al.'s research, the order of acquisition of question-formation adheres to a hierarchy that has six levels (Table 2.1).

Table 2.1: Order of acquisition for question formations

Level 1	Learners have the ability to use individual words, fixed phrases or sentence fragments with rising intonation
Level 2	Learners assign morphemes to words but are only able to use canonical/ declarative word order with rising intonation. There is no inversion or fronting.
Level 3	Learners are able to move words around only within phrases. Ability to use *wh*-fronting of questions without inversion, do-fronting and other-fronting develops.
Level 4	Grammatical information can be moved inside the sentence to the beginning or end; learners are able to use inversion with *wh*- questions + copula and inverted *wh*-questions using '*do'* support in yes/no questions.
Level 5	Learners develops the ability to use inversion with *wh*-questions, such as inverted *wh*-questions with '*do*' support, inverted *wh*-questions with other auxiliaries
Level 6	Learners develop complex question formations such as tag questions, negative questions and embedded questions.

Note. Adapted from *Studies in Second Language Acquisition* by P. Lightbown and N. Spada, 1999, Oxford University Press, p. 79.

Since question formations are easily elicited from students, they are an ideal candidate to help determine students' level of acquisition of English (Mackey & Philp, 1998). While the Pienemann et al. study was based on data from over 200 hours of recorded speech of literate ESOL adults and children, how illiterate or low-literate ELLs acquire a second language and whether they follow the same order as literate students has yet to be researched conclusively.

Adult Literacy in a Second Language

While how low-literate adult ELLs learn a second language or what a "normal" trajectory consists of is not yet fully understood, there is no doubt that adult low-literacy ELLs are able to achieve higher literacy levels. Recent research supports the idea that there is no significant critical period for becoming literate in a L1 (Young-Scholten & Strom, 2006), as has been theorized for second language acquisition, and that adults are just as able to learn to read and write in an L1 as children. Interestingly, Young-Scholten and Strom's research further maintains that there is no critical period for L2 literacy learning.

Young-Scholten and Strom conclude that the greatest determining factor for adults to be able to develop literacy in an L2 is acquiring a large enough linguistic lexicon (phonology, morphology, syntax) in the L2 to support reading and phonological awareness. Young-Scholten and Strom assert that with enough time, input, and effort, adult learners retain the ability to become literate in an L2. Tarone, Bigelow and Hansen (2009a) bring to the forefront the larger consequences of illiteracy for adult ELLs by stating that "lack of native language literacy does not only impede L2 *literacy*," (p. 117, emphasis in the original); rather, low-level literacy may actually "impede the acquisition of oral skills in an L2" (p.117). Bigelow and Hansen (2005) further state that "the acquisition of the ability to decode an alphabetic script changes the way in which the individual processes oral language" (p.81). Thus the need to understand the connection between oral fluency and literacy level in adult ESOL learners is urgent.

Need for Research

Though there is increasing research on adult second-language learning and adult literacy learning, there is very limited research on adult low literacy and its impact on second-language learning (Tarone & Bigelow, 2005; Tarone, Bigelow and Hansen, 2009; Young-Scholten & Strom, 2006). Aside from the recent work with low-literate adolescent Somali ELLs by Tarone, Bigelow and Hansen (2009), research on oral recasts and recall has mainly focused on monolingual participants (both literate and illiterate) or adult ELLs in higher education settings. Few studies have been done which have combined English language learning with adult low-literacy learners. How accurately low-literacy ELLs process oral recasts and their ability to precisely recall oral speech in an L2 remains to be further studied. Thus, further research which builds on Tarone, Bigelow and Hansen's studies to explore how literacy level affects learners' response to L2 oral input and feedback needs to be done in order to help fill in part of this gap in the field of ESOL.

Research Questions

This study aims to investigate the relationship between adult low literacy and oral output in order to examine the impact of low literacy on second language oracy. This issue will be investigated using the following questions:

- What is the effect of literacy level on accuracy in recall activities that use elicited imitation to produce question formations?

- How accurately do low-literacy adult ELLs recall oral corrective feedback (recasts) in learner-generated question formations?

Summary

This chapter defined literacy and illiteracy for the purposes of this study. It also reviewed research on processing strategies of illiterate individuals as well as the benefits of literacy. It further reviewed current research on the impact of literacy on second language oracy and adult literacy in a second language. Finally, it gave an overview of research done on the noticing hypothesis and recasts and stated the need for further research in these areas with illiterate and low-literate adult ELLs. As a result, the preceding review of literature supports a study into using recall and recasts with low-literacy adult ELLs.

CHAPTER THREE: METHODOLOGY

This study is designed to explore how accurately adult low-literacy ELLs recall oral corrective feedback. In order to conduct this research project I used several techniques to collect data. I interviewed participants to gather background and demographic information. I tested both their literacy level (both native language and English) and their oral proficiency level in English. I then recorded their responses to one activity that used elicited imitation to produce question formations, as well as two activities designed to elicit student-generated question formations.

In this study I wanted to find out how accurately participants recall researcher-generated question formations through the use of Elicited Imitation. I also wanted to know how accurately low-literacy adult ELL participants recalled oral corrective feedback (recasts) in learner-generated question formations.

Overview of the Chapter

This chapter describes the methodologies used in this study. First, the rationale and description of the research design is presented along with a description of the mixed methods paradigm. Second, the data collection protocols are presented, including information about the participants, settings, and data collection techniques. I then explain

how data was collected and analyzed based on students' responses to oral output and corrective feedback.

Mixed Methods Research Paradigm

In this study I explored the relationships between adult ELL literacy level, oral recall of researcher-generated question formations, and oral recasts using learner-generated question formations in order to investigate the impact of low literacy on second language oral accuracy. So as to answer these questions a mixed-methods paradigm made it possible to gather data on participants' background, literacy levels, oral proficiency level in English, and their ability to recall utterances and oral corrections in recasted question formations.

This research project used a mostly quantitative approach, although it does have some qualitative aspects. Since this was a similar study of Tarone, et al.'s (2009b) work with low-literate ELLs, the data-collection tasks and analysis procedures reflected the ones used in their study. Though I had some qualitative data from interviews and oral recast analysis, most of the data was interpreted and analyzed quantitatively. Ultimately, I transcribed, analyzed, and interpreted students' spontaneous responses to interviews, tasks and assessments. A small sample of convenience is required due to the limited number of potential participants at each site. Overall, the basic criteria for a quantitative method was met according to descriptions set out by Dörnyei (2007), such as converting data into numerical formats, the use of statistical analysis, and focusing on variables instead of individual cases.

Data Collection

Participants

I interviewed fourteen adult low-literacy ELLs. Participants were recruited through two local ABE sites based on coordinator and instructor recommendation. Participants were recommended to this study by their teachers and program coordinators based on CASAS scores and knowledge of students' literacy level drawn from classroom observations or intake data. After being informed of the study, participants chose whether they were interested in participating in the study or not. Participants had at least basic survival level English oral proficiency and prior exposure to learning English either formally or informally. All participants had little to no formal academic exposure in their native language and self-identified as having difficulties reading or writing due to lack of schooling. Participants were all over the age of eighteen and were native speakers of either Somali or Spanish. Remuneration for the time spent in the interview was provided to participants.

Location/Setting

Locations were chosen based on the researcher's familiarity with student populations and their administrations. At both sites the researcher had the opportunity to teach students on a paid substitute or coordinator basis prior to the start of the study. Participants were students in urban ABE/ ESOL classes held in a large metropolitan area in the Upper Midwest. Both ABE sites have been working with ABE/ ESOL participants for more than thirty years. Students were interviewed individually outside of class time

and in a quiet non-classroom space at the institution where they normally attend classes. An appropriate Somali language interpreter accompanied the researcher during the initial introductory interviews with participants.

Data Collection Technique 1: Initial Introductory Interview

Participants were interviewed in their native language to determine if they met the basic requirements of the study, such as: willingness and interest in participating in the study, little to no academic experience in their native language, and self-identification of having difficulty reading or writing due to lack of education. The consent form was sight-translated by the interpreter to participants into their native language. Once participants signed the consent form the tape-recorder was turned on. Participants were asked a variety of questions relating specifically to their educational experiences and educational support system (see Appendix A).

Data Collection Technique 2: Literacy Assessment

Participants' native language literacy as well as literacy level in English was assessed using the Native Language Literacy Screening Device (NLLSD) created by the University of the State of New York (See Appendix B). Somali translations were generously provided by Tarone, Bigelow and Hansen. This assessment was performed in order to group participants and categorize literacy scores for further analysis. Although the NLLSD is not a comprehensive literacy test, Tarone, et al. (2009b) compiled a supplemental rubric that is based on observations of a student's behavior as he or she

completes the assessment. The researcher slightly modified this checklist so that rubric scoring definitions matched exactly for both the native language and English literacy assessments, in which actions such as participants' confidence while reading and vocalization while reading alone were assessed (See Appendix C).

Each participant completed the assessment in both their native language and English. Assessments and tasks were introduced after opening with an introductory conversation (See Appendix A) to determine the participants' educational background and ease them into tasks in the least threatening manner possible. While the student focused on completing the literacy assessment, the observational rubric was completed as discreetly as possible by the researcher and also video-recorded for further analysis.

Data Collection Technique 3: Oral English Proficiency

Students' oral proficiency in English was tape-recorded and later assessed using the American Council on the Teaching of Foreign Languages (ACTFL) Oral Proficiency Interview (OPI) technique and rating scale. Interviews and ratings were done by the researcher, who has been trained in OPI rating (see Appendix D).

Data Collection Technique 4: Elicited Imitation

The researcher created twenty-eight questions based on questions originally used by Tarone, Bigelow and Hansen (2009b). Each question was controlled for level of acquisition using the 1988 Pienemann et al. scale and for length. Moreover, each question was exactly 8 syllables long. The researcher instructed the participant that they would be

hearing each question formation one time and they were to repeat it as quickly as possible as much as they could remember. If participants were unable to remember any part of the question formation, the researcher waited until the participant indicated that they could not continue (see Appendix E).

Data Collection Technique 5: Spot-the-Difference Task

Participants were given half of a handout with pictures of various items on it (See Appendix F). The researcher had the other half of the handout with similar but slightly different pictures on it. The participant asked the researcher questions about what was on the researcher's half of the handout to determine how they were similar and different. This task was used in order to elicit questions in English. When the participant asked questions that conformed to native speaker standards, the conversation continued uninterrupted. When the participant formulated a question that did not conform to native question formation, the researcher knocked twice on the table and recast the question into the standard formulation. The participant then repeated the recasted information if possible and the researcher replied to the intended meaning of the question and continued on with the conversation. Modeling of the instructions was practiced with the participant before the task was started.

Data Collection 6: Story Completion Task

The story-completion task used the hand drawn narrative pictures used by Tarone, Bigelow and Hansen (2009b) (See Appendix G). The researcher presented each picture

one at a time and the participant asked questions about the pictures to determine what the story was about. This continued until all the pictures had been presented and the story was completed. Questions were recast in the same manner as in the spot-the-difference task.

Procedure

Participants

Data was collected from participants in one to two sessions, depending on interpreter availability, using the following order:

Consent Form

Introductory interview (In native language)

Oral Proficiency Interview (English)

Elicited Imitation sentences

Spot the difference task

NLLSD in native language

Story Completion task

NLLSD in English

Participants were grouped according to their Literacy Rating Scale scores which ranged according to Tarone, et al.'s rubric. Scores closer to 1 indicate low literacy whereas scores closer to 9 indicate a moderate literacy level. Participants were also grouped according to the OPI rating to categorize their English-speaking proficiency.

Age, native language, total amount of schooling, the length of time they have studied English, among other demographic information, were also noted from the interview.

Materials

Participants were both audio-recorded and video-recorded during the interview and assessments unless they specifically asked not to be video-recorded. Pictures used in the handout for the Spot-the-Difference task and Story Completion task were clear color drawings printed on white paper and laminated for durability. Story-sequence as well as the Spot-the-Difference task pictures were composed of color hand-drawings created for and provided to the researcher by Tarone, Bigelow and Hansen. Participants were given the NLLSD in both their native language and English using paper copies.

Data Analysis

Literacy Assessment

Participants' literacy level were rated based on Tarone, et al.'s (2009b) slightly modified observational rubric. Participants' behavior during the NLLSD assessment was assessed using Tarone, et al.'s rubric. Each participant's ultimate numerical score was compared by the researcher and another rater in both their native language and English. The average of the scores awarded by the two raters was calculated to best determine the participant's score in their native language, English and their overall literacy score. Once all participants' literacy levels were scored, the participants were sorted into groups of low and moderate literacy.

Oral Assessment

Participants' English oral proficiency was tested using the ACTFL OPI technique and rating scale. Interviews and ratings were audio-recorded and scored by the researcher, who has been trained in the ACTFL English OPI technique. Participants were grouped into English proficiency levels depending on their OPI score.

Elicited Imitation Task

Participants were asked to repeat as accurately as possible interrogative sentences produced by the researcher. Participants were informed that they would hear each of the twenty-eight eight-syllable sentences once and to try to repeat the sentences as quickly and accurately as they were able. Participant's responses were categorized as: No Recall, Ungrammatical Question-formation, or Grammatical. No Recall answers were categorized as having insufficient recalled information to rate the accuracy of the recall. For example:

Researcher: She went to the nurse, didn't she?

Participant:… study… ?

Ungrammatical Question-formation was assigned when the recall had errors in appropriate question word order, lack of auxiliary verbs or subjects. For example:

Researcher: Why hasn't your friend come to class?

Participant: Why… the coming... the class?

Grammatical question formations had appropriate question word order, auxiliaries and subjects. Changes in word choice were acceptable as long as the utterance conformed to

the syntactic requirements of question formation. Non-question form discrepancies were irrelevant to the rating. The following recast would be counted as grammatical although it does not perfectly match the original question:

Researcher: Where do I buy the best coffee?

Participant: Where do you like the coffee?

Spot-the-Difference and Story Completion Tasks

All answers to both the Spot-the-Difference and Story Completion tasks were tape-recorded and transcribed. Participants' recalls of recasts were recorded and categorized using Tarone, Bigelow and Hansen's (2009) schema for the degree of accuracy of the recast and rated by both the researcher and one other rater. The degree of accuracy of the recalls was put into one of three categories created by Tarone, Bigelow and Hansen (2009b): Correct, Modified, or No Recall. Correct recalls were defined as recalls that exactly matched the recast. Modified recalls were those which had some or most the information from the recast but not all. No Recall was defined as containing none of the changes from the recast.

Verification of Data

In order to ensure internal validity the researcher used a second data reviewer to judge participants' responses to the different tasks. The NLLSD was used to give insight into students' literacy level in both their native language and English. The OPI test was used to determine participants' stage of English acquisition. The Spot-the-Difference task

and the Story Completion task were used to give insight into how accurately participants recalled corrective oral recasts that focused specifically on question formation.

Ethics

This research study protected the participants' privacy, identity, and rights through the following safeguards. This study was approved by Hamline University's Institutional Review Board (IRB) for work with human participants. If learners decided to participate in my research, their identity was protected. No names or identifying characteristics were used in this study. Research objectives were shared with participants in their native language. Participants were provided with a consent form which was sight translated to them by a qualified interpreter in order to obtain informed consent. The researcher transcribed taped recordings so voices could not be identified, and recordings will be destroyed after seven years. Participants' placement and progression in ESOL classes were not affected by their participation or the analysis of their responses. The risks for participants were less than minimal. Nevertheless, learners could decide not to participate at any time without any negative consequences.

In this chapter, I described the methods I used to collect and analyze student responses to corrective oral feedback. The next chapter includes the results of this study.

CHAPTER FOUR: RESULTS

This study took place in two non-profit institutions in a large metropolitan city in the upper Midwest. I collected my data using structured interviews which included a variety of activities and literacy assessments. Through the collection of this data I sought to discover the answers to the following questions: What is the effect of literacy level on accuracy in recall activities that use elicited imitation to produce question formations? How accurately do low-literacy adult ELLs recall oral corrective feedback (recasts) in learner-generated question formations?

Data

Participants

The participants in this study were eleven adult ESOL students from two Adult Basic Education sites. Those who chose to partake in the in study were either native Somali or Spanish speakers who ranged in age from 24 to 67 years old and had resided in the United States for between 2 and 31 years. Ultimately fourteen people were interviewed but only eleven were used in the study. Participants were not included in the study if they

had incomplete interview sessions or a rating of less than Novice High on their Oral Proficiency Interview. Participant data is shown in Table 4.1.

Participants were almost equally split between rural (5 participants) and urban (6) upbringings, and although all participants noted that they had schools near their homes growing up, educational study in their native language varied among participants from 0 to 9 years. Most Somali speakers had some experience studying in a language that was neither their native language nor English while living in refugee camps. Most Somali speakers also spoke or understood, to some extent, other languages such as Swahili, Amharic, Oromo, and Arabic. Formal English language instruction ranged from one day to approximately five years, and few participants had studied consecutively without breaks in study.

Class sizes, instructional methods, and individual persistence in education that was imparted in the participants' native language, or a non-English language, varied. Most participants noted that class sizes generally ranged between 30-60 students and three noted that they had studied in one-room schoolhouse classes with mixed-level students. Participants frequently commented that most classes employed a rote memory instructional style and all had little or no individual attention while learning to read or write. Many noted that although they started school at the beginning of the academic year, they rarely attended a full year of instruction due to political, financial, or personal reasons.

Primarily due to financial, socio-political, and/or familial constraints, most participants had little outside educational support. Although most participants had at

least one parent who had attended some school, most frequently the father, they noted that parents and siblings rarely helped them with schoolwork. The vast majority of participants had less than five books in their homes as children, which consisted entirely of their (or their siblings') elementary school workbooks.

Table 4.1: Participant Data

Participant	Native Language	Age	Mother attended school	Father attended school	Approx. Yrs of School: Native Language	Approx. Yrs of school: Non-Native and/ Non-English Language	Years residing in the US	Approx. Time: Formal ESOL Classes	Literacy Rating	OPI Rating
FS	Somali	24	No	Yes, HS	1	1; Arabic	2	3 years	Low	IL
MV	Spanish	44	Yes, 2nd grade	No	0	0	18	<6 months	Low	IL
MZ	Spanish	50	No	Yes, 6th grade	6	0	25	<6 months	Low	NH
ER	Spanish	41	No	Yes, 4th grade	3	0	21	3 years	Low	IL
AC	Spanish	67	No	No	0	0	21	4 years	Low	NH
NN	Somali	39	Yes; unknown	Yes; unknown	3	0	5	5 years	Low	NH
HH	Somali	25	No	Yes; unknown	0	7; Arabic, Amharic, Oromo	5	2 years	Moderate	IL
AD	Somali	28	No	Yes, University	0	2; Swahili	7	5 years	Moderate	IM
MR	Spanish	50	No	No	3	0	31	2 years	Moderate	IH
TP	Spanish	36	No	-	6	0	10	1 year	Moderate	NH
EA	Spanish	40	-	Yes, 6th grade	9	0	10	1 day	Moderate	IM

Literacy Assessment

Participants' literacy levels in both their native language and English were rated based on a slightly adapted version of Tarone, et al.'s (2009b) observational rubric (see Appendix B). The participant's numerical score for each language was rated by both the researcher and another rater. Participants' literacy rating group was the mean score of

both their native language and English literacy scores. Participants' literacy levels ranged from 4.5 (low literacy) to 8.5 (moderate literacy) on a scale from 0-9. The number of years that a participant attended school did not seem to be related to literacy level. No participant could be considered as has having higher or comparable literacy to peers of the same age who had been able to attend school consistently. Table 4.2 presents the results of these ratings.

Table 4.2: Literacy Ratings

Participant	Native Language	English Rating	Literacy Mean	Literacy Group
FS	4	5	4.5	Low Literacy
MV	5	5	5	Low Literacy
MZ	5	5	5	Low Literacy
ER	5	6	5.5	Low Literacy
AC	7	6	6.5	Low Literacy
NN	7	6	6.5	Low Literacy
HH	8	6	7	Moderate Literacy
AD	7	8	7.5	Moderate Literacy
MR	7	8	7.5	Moderate Literacy
TP	8	7	7.5	Moderate Literacy
EA	9	8	8.5	Moderate Literacy

Oral Assessment

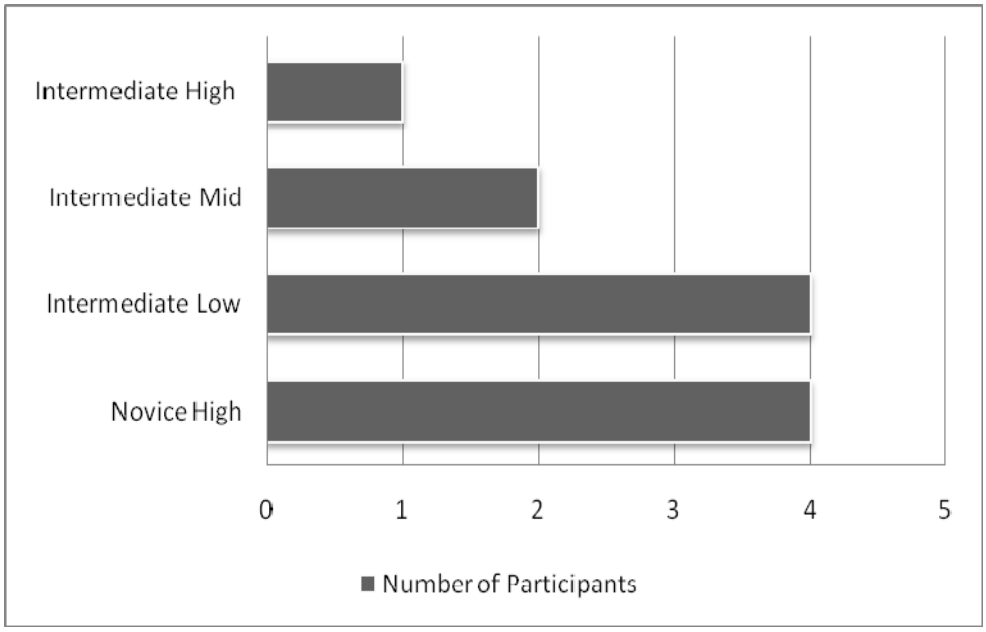
Participants' English oral proficiency was assessed using the ACTFL OPI technique and rating scale. Interviews and ratings were scored by the researcher according to the ACTFL OPI procedure and rating. No participants were included in the study that scored less than Novice High as they had not yet acquired question formation ability in English. Participants' ratings ranged from Novice High (NH) to Intermediate High (IH) with the

majority of participants rating either Intermediate Low (IL) or Novice High (NH). Table 4.3 and Figure 4.1 present the results of this assessment.

Table 4.3: Oral Proficiency Interview (OPI) Rating

Participant	OPI Rating
MZ	Novice High
AC	Novice High
NN	Novice High
TP	Novice High
FS	Intermediate Low
MV	Intermediate Low
ER	Intermediate Low
HH	Intermediate Low
AD	Intermediate Mid
EA	Intermediate Mid
MR	Intermediate High

Figure 4.1: Participant OPI Ratings



Elicited Imitation Task

Participants were asked to repeat as accurately as possible interrogative sentences produced by the researcher. Participants heard each of the twenty-eight, eight-syllable sentences once and tried to repeat the sentences as quickly and accurately as they were able. Each student recall was then categorized as No Recall, Ungrammatical question-formation, or Grammatical.

No Recall was assigned when the participant could not remember anything that had been said or was able to produce so little information as to be ratable. Roughly 12% of all participant question recalls were rated No Recall. Overall participants' responses were rated No Recall although they still were able to produce some semantic information although not enough syntactic, morpho-syntactic or lexical information to warrant an ungrammatical rating. For example:

Researcher: How are Tom's new friends from Roseville?

Participant MZ: How… arm… rose?

or

Researcher: Have they opened the new store yet?

Participant AC: Have... new store?

Ungrammatical question formation was assigned when the participant was able to recall some of the interrogative information but did not use the appropriate question formation and/or was missing the subject or appropriate auxiliary. Overall 33% of all participants' question recalls were rated Ungrammatical. For example:

Researcher: Are the red apples a good price?

Participant TP: The red apples is the good price?

Questions were categorized as Grammatical if the correct question-formation syntax was achieved and included appropriate subjects and auxiliaries even if the wrong question word was substituted or there were minor differences in the target form and the recalled information. Non-question form discrepancies were irrelevant to the rating. Grammatical recalls accounted for 55% of all recalls. For example:

Researcher: Can you explain who she just called?

Participant MR: Can you explain who she just call?

or

Researcher: Who will he live with in New York?

Participant NN: How do you live in New York?

Ultimately the sums of No Recall, Ungrammatical Question Formation and Grammatical were collected according to Literacy Group. As the Moderate Literacy and the Low Literacy groups contain different numbers of participants, the totals of each category were converted into percentages. Table 4.4 presents the results of this activity.

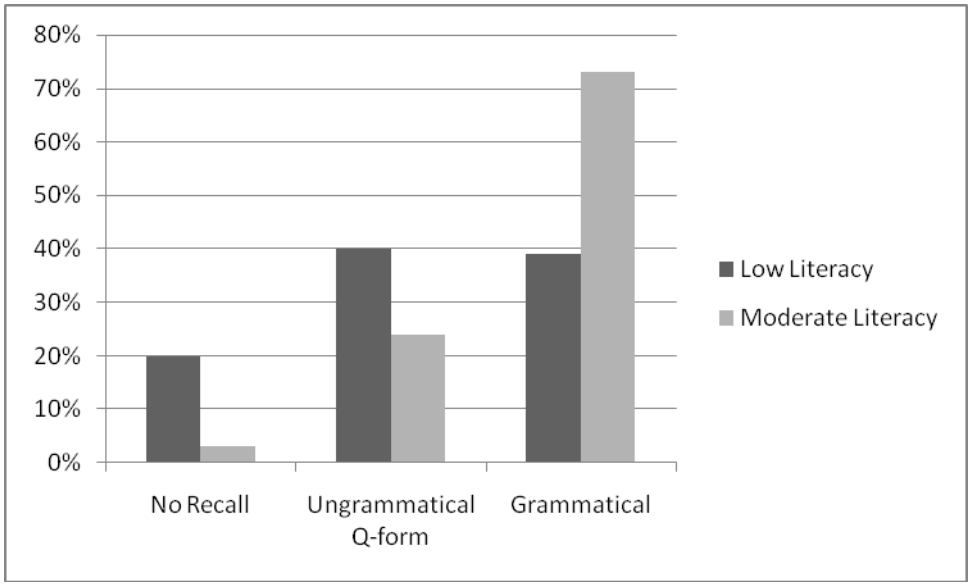
Table 4.4: Elicited Imitation

EI: Low Literacy	No Recall	Ungrammatical Q-form	Grammatical	Total Questions
Totals	34	68	66	168
Percentages	20%	40%	39%	100%

EI: Moderate Literacy	No Recall	Ungrammatical Q-form	Grammatical	Total Questions
Totals	4	34	102	140
Percentages	3%	24%	73%	100%

In the Elicited Imitation task the Moderate Literacy group scored 73% Grammatical recall while the Low Literacy group achieved only 39% Grammatical recall. The Low Literacy group also had much higher levels of No Recall responses (20%) and Ungrammatical recall (40%) in comparison with the Moderate Literacy group (3% and 24% respectively). Overall, the Moderate Literacy group had more accurate grammatical recall than the Low Literacy group. These results confirm the findings of Tarone, et al., (2009b) that higher level literacy participants will have higher accuracy of recall in elicited imitation tasks than lower literacy participants. Results of the Elicited Imitation task are shown in Figure 4.2.

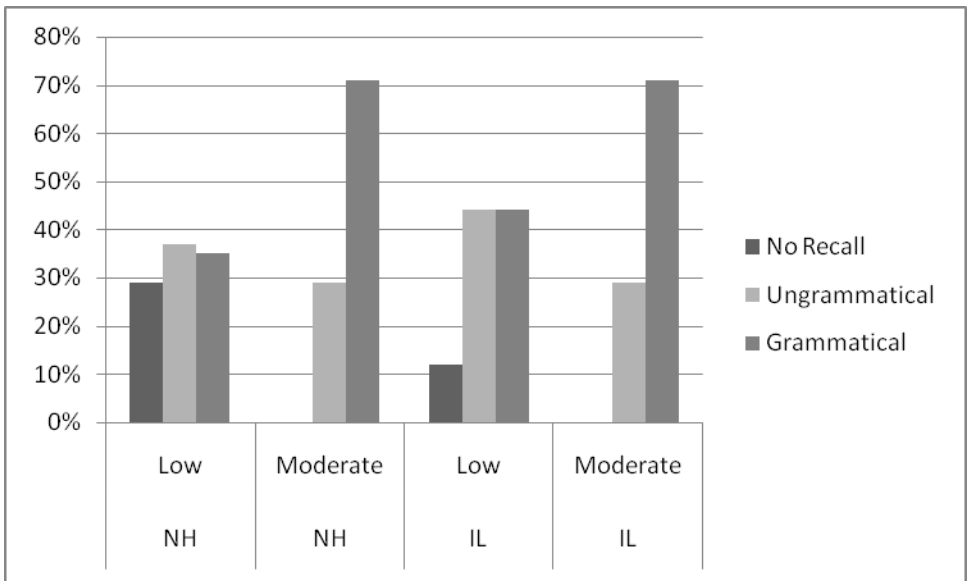
Figure 4.2: Results of Elicited Imitation task by Literacy Group



As oral proficiency level could contribute to the differences in accuracy, the Novice High (NH) and Intermediate Low (IL) oral proficiency groups were also analyzed as they were the two oral proficiency groups that contained both Low and Moderate Literacy participants. The results are illustrated in Figure 4.3. Moderate Literacy participants

scored higher in grammatical responses than their oral proficiency level counterparts. NH Moderate Literacy participants had 71% grammatical responses compared to their Low Literacy counterparts who had 35% grammatical responses. IL Moderate Literacy participants also had 71% grammatical answers compared to 44% of the IL Low Literacy participants. Moderate Literacy participants in both the NH and IL oral proficiency levels also had 0% No Recall answers whereas their Low Literacy counterparts had 29% and 12% respectively.

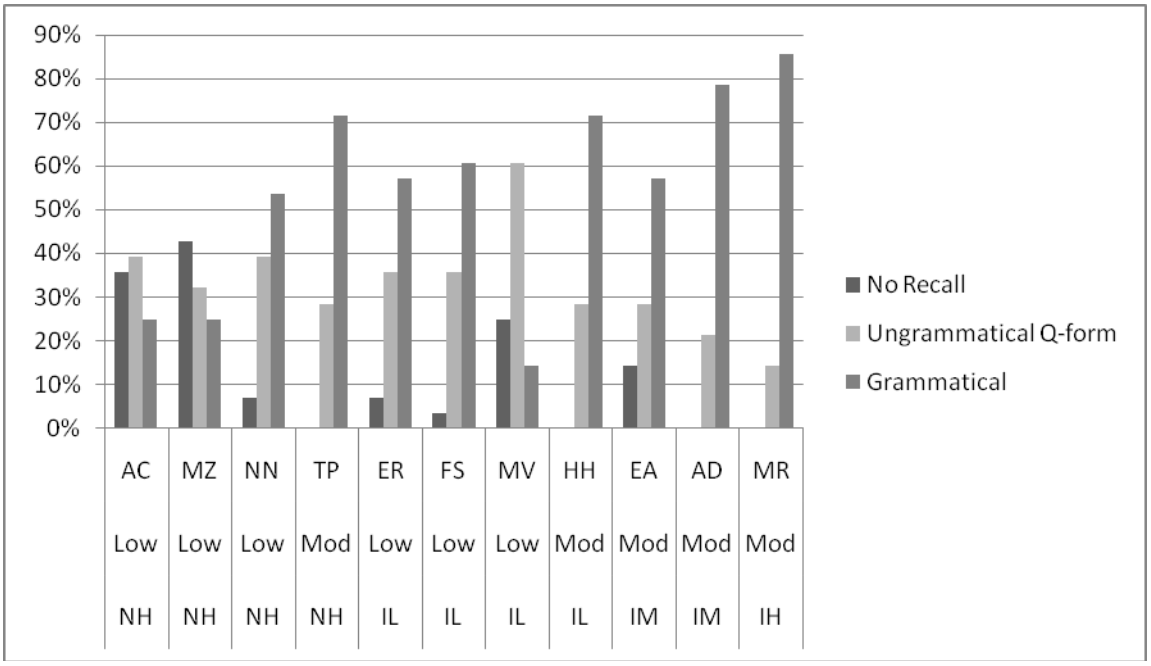
Figure 4.3: Elicited Imitation Oral Proficiency Level and Literacy Level



On an individual level most participants had the largest percentage of their responses in the grammatical question-formation category. In this task, Somali speakers often had a higher percentage of grammatical responses then their Spanish-speaking peers. Of all the participants, MR had the highest total percentage of grammatical responses (86%). The participants who had the highest percentages of grammatical responses from each of the

four oral proficiency levels were all from the Moderate Literacy group (TP from NH; HH from IL; AD from IM; and MR from IH). Figure 4.4 illustrates this data.

Figure 4.4: Elicited Imitation Individual Responses by Literacy and OPI Level



Spot-the-Difference

All answers to both the spot-the-difference and story-completion tasks were categorized using Tarone, Bigelow and Hansen's (2009) schema. The degree of accuracy of each recall was put into one of three categories: Correct, Modified, or No Recall. Correct answers were counted if the recalls exactly matched the recast. Modified answers were those which had some of the changes incorporated into the recall but not all changes. No Recall answers were categorized as recalls that did not include a single change from the recast. Participant questions that exhibited correct question formation

and thus did not trigger a recast by the researcher were counted only once per correct formation. Thus if the participant repeatedly asked the question, *"What is he doing?"* it was only noted as one initially correct question formation. Table 4.5 illustrates the results of the Spot-the-Difference task.

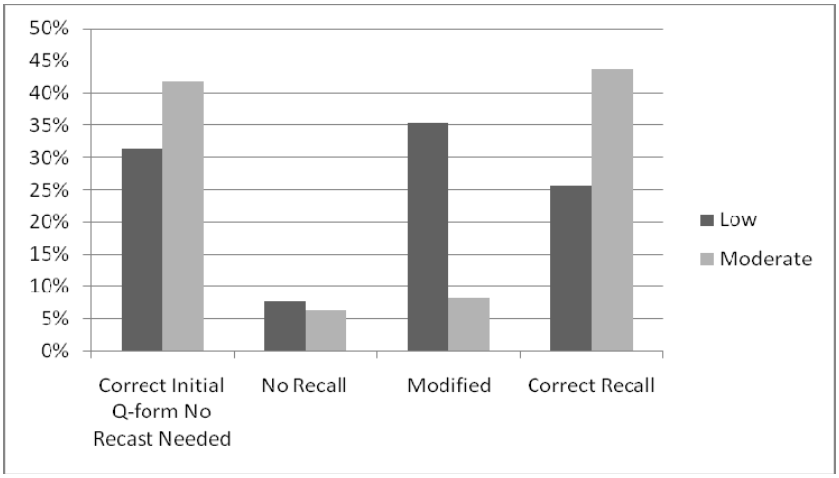
Table 4.5: Spot-the-Difference

Low Literacy	Correct Initial Q-formation	No Recall	Modified Recall	Correct Recall	Total
Raw Totals	16	4	18	13	51
Percentages	31%	8%	35%	25%	100%

Moderate Literacy	Correct Initial Q-formation	No Recall	Modified Recall	Correct Recall	Total
Raw Totals	20	3	4	21	48
Percentages	42%	6%	8%	44%	100%

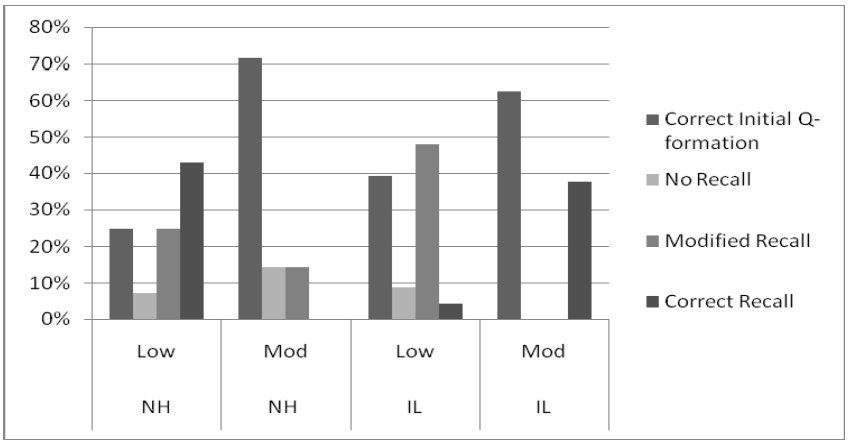
In the Spot-the-Difference-task, there was evidence of positive uptake of recasts as exhibited by participant recall across the spectrum. However, the Moderate Literacy group had notably more correct recall (44%) responses than the Low Literacy group (25%). The Moderate Literacy group also produced fewer Modified responses (8%) than the Low Literacy group (35%). Both groups had relatively similar amounts of No Recall responses. The Moderate Literacy group also produced a higher percentage of correct initial question formations that the researcher did not have to recast (42%). These results confirm the findings of Tarone, et al. (2009b) that higher level literacy participants will have higher accuracy of recalling recasts than lower literacy participants. Results can be seen in Figure 4.5.

Figure 4.5: Spot-the-Difference Results by Literacy Group



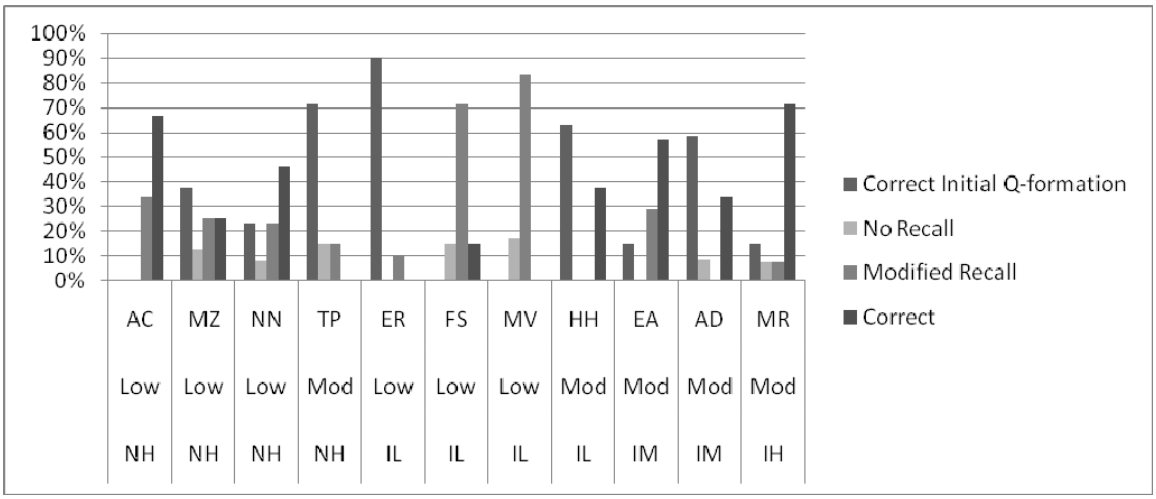
Based on oral proficiency level, the Moderate Literacy NH responses had a higher amount of correct initial question formations (71%) than the Low Literacy participants of the same oral proficiency level (25%). Moderate Literacy IL responses had a much higher percentage of correct initial question formations (63%) and correct recall responses (38%) compared to their Low Literacy counterparts (39% and 4% respectively). Results can be seen in Figure 4.6.

Figure 4.6: Spot-the-Difference Oral Proficiency and Literacy Level



Individually, all participants had more correct initial question formations than any other category (no recall, modified, correct). MR had the most Correct recalls and the most total questions; either of these results could be attributed to MR's high oral proficiency level or moderate literacy level. Although grouped with the low literacy participants, ER had the most correct initial question formations which did not need recasting by the researcher. This was due to the fact that she started seven of her ten questions with the set phrase "What is…" or "Where is…" The results can be found in Figure 4.7.

Figure 4.7: Spot-the-Difference Individual Results



Story Completion

The Story Completion task had similar results to the Spot-the-Difference task. The Moderate Literacy group had more Correct recalls (52%), while the Low Literacy group had more Modified recalls (48%) of recasted material. Both groups had similar percentages of No Recall. The Moderate Literacy group also had slightly more correct

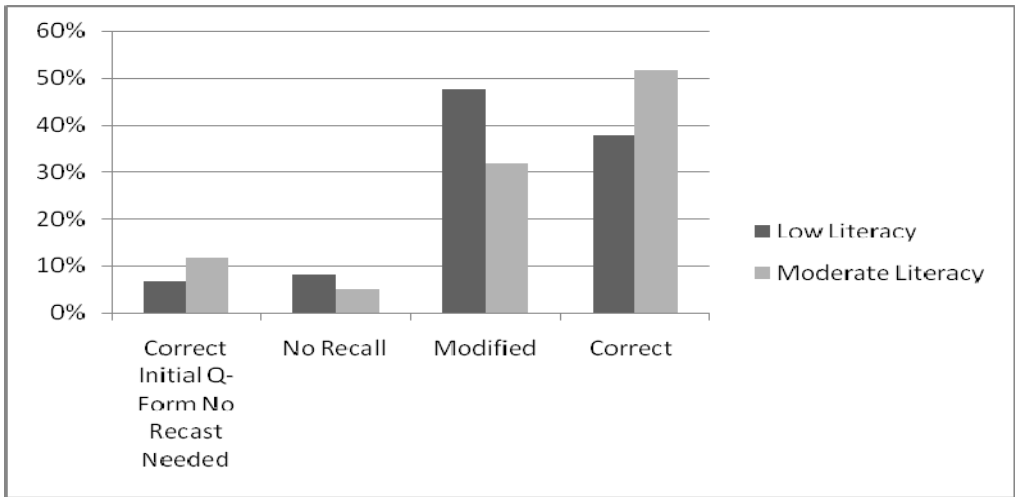
initial Q-forms needing no recast by the researcher: 12% vs. the Low Literacy group's 7%. Results can be seen in Table 4.6 and Figure 4.8.

Table 4.6: Story Completion

Low Literacy	Correct initial Q-form No Recast Needed	No Recall	Modified	Correct	Total
Raw Totals	4	5	29	23	61
Percentages	7%	8%	48%	38%	100%

Moderate Literacy	Correct Initial Q-Form No Recast Needed	No Recall	Modified	Correct	Total
Raw Totals	7	3	19	31	60
Percentages	12%	5%	32%	52%	100%

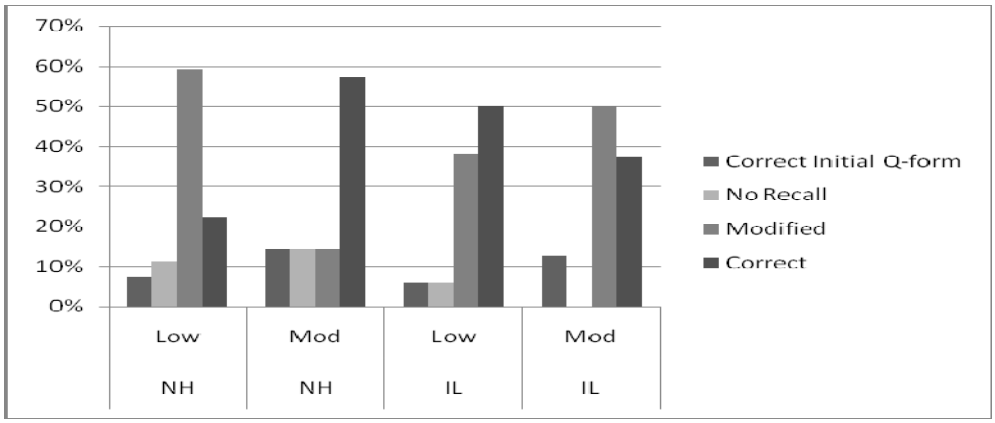
Figure 4.8: Story-completion Results by Literacy Group



When looked at by oral proficiency level, the Novice High group had the most striking difference of accuracy for the Low versus Moderate Literacy participants. The NH Low Literacy participants had 59% modified answers as opposed to the Moderate Literacy's 14%. Moderate Literacy NH also had 57% correct recall in comparison to the Low Literacy's 22%. These results confirm the findings of Tarone, et al. (2009b) that

higher-level literacy participants will have higher accuracy of recalling recasts than lower literacy participants. The Intermediate Low group had less drastic variation and in an interesting inversion, the Low Literacy group had more correct recalls (50%) than the Moderate Literacy group (38%). In raw numbers the result is less striking. The IL Low Literacy group had 13 modified and 17 correct answers whereas the Moderate Literacy group had 4 modified and 3 correct responses. Thus although the percentages suggest an inversion, the raw numbers for the Moderate Literacy group Modified and Correct responses are much closer than the Low Literacy group. Results can be seen in Figure 4.9.

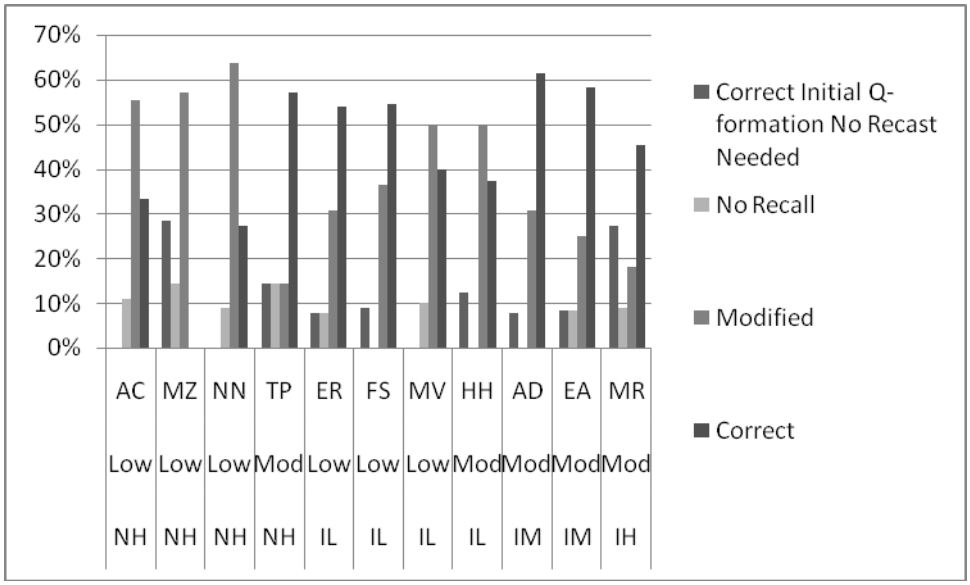
Figure 4.9: Story-Completion Oral Proficiency and Literacy Level



Individually, ER and AD had the highest total raw questions asked. AD, who had the highest oral proficiency level and literacy level of the Somali-speakers, also had the highest number of Correct recasts in this task. MR had the highest total initial questions with correct question formation which did not require recasting by the researcher. Once again this could be attributed to MR's high oral proficiency level or literacy level. Perhaps as this was the last oral activity presented to participants and had highly

contextualized meaning and function, Correct recalls markedly increased for both ER and FS. Results can be seen in Figure 4.10.

Figure 4.10: Story-Completion Individual Results



Conclusion

In this chapter I presented the results of my data collection. Participant data was collected and presented to develop more detail about participants' educational experiences. Literacy scores for both participants' native language and English were calculated and ranged from 4.5 to 8.5. Students were then categorized according to their mean literacy score into two groups: Low Literacy or Moderate Literacy. Oral Proficiency levels were also taken in which participants ranged from Novice High to Intermediate High. Accuracy was measured for the tasks of Elicited Imitation, Spot-the-Difference and Story Completion and percentages were calculated based on literacy

groups. In Chapter Five I will discuss my major findings, their implications, and suggestions for further research.

CHAPTER FIVE: CONCLUSIONS

In this study I attempted to answer the questions: What is the effect of literacy level on accuracy in recall activities that use elicited imitation to produce question formations? How accurately do low-literacy adult ELLs recall oral corrective feedback (recasts) in learner-generated question formations? This chapter will address my major findings, the limitations of this study, implications for ESOL teachers, and suggestions for further research.

Major Findings

Major patterns emerged from the data in this study. First the Low Literacy group had more No recall in researcher-generated questions in the Elicited Imitation task than the learner-generated question recasts; but had similar outcomes for both the Modified and Grammatical/Correct response categories in all three tasks. The Low Literacy group's increased No Recall responses on researcher-generated question formations may be due to the difficulty of repeating new or unfamiliar words for low-literate participants (Castro-Caldas, Petersson, Reis, Stone-Elander & Ingvar, 1997; Castro-Caldas, et al. 1998; Philp, 2003). The Moderate Literacy group had fewer differences between outcomes of the student-generated question recasts versus the researcher-generated

Elicited Imitation task, although they demonstrated more Modified than Correct responses in the Story Completion task.

Next the participants in the Moderate Literacy group outperformed the Low Literacy group in all three of the recall and recast/recall activities. These findings support Castro-Caldas, et al.'s 1997 study which found that literate and non-literate populations have some different processing strategies for oral language in their L1. The Moderate Literacy group surpassed the Low Literacy group by over 20% on all Correct and Grammatical scores in the Elicited Imitation, Story Completion and Spot-the-Difference tasks. This also may be due to Castro-Caldas, et al.'s 1998 findings that non-literate subjects had more difficulty correctly repeating words in their L1 than their literate counterparts and even more difficulty recalling and repeating novel pseudo-words. As English is not the native language of any of the participants in this study, comparisons could be drawn to English words and Castro-Caldas, et al.'s use of pseudo-words. Moderate Literacy participants also outperformed their oral proficiency level counterparts in accuracy in two out of the three activities. This corroborates with Bigelow, et al.'s 2006 findings that the conscious noticing of linguistic forms imparted in oral feedback is more positively incorporated by literate ESOL learners than low-literacy ESOL learners. Thus impact of literacy level on oral recall may support the findings that higher literacy level has a positive impact on second language oral proficiency (Tarone, et al., 2009b), but further research remains to be done.

Although individual results varied from task to task, the Moderate Literacy participants and group consistently had more accurate oral recall across the activities.

Overall literacy had a clear positive influence on recall accuracy in adult ELL participants. These results confirm the findings of Tarone, et al.'s (2009b) previous study which focused on low-literacy Somali young adults' oral recall abilities, and helps fill in the gap of research on adult low-literacy ESOL learners and their ability to perceive and incorporate oral correction.

Limitations

This study had three limitations. Firstly, this was a small sample study of convenience with only eleven participants. Thus there were not enough Moderate Literacy participants to give a balanced comparison for each oral proficiency level. Hence this study was not able to include any high level oral proficiency participants who had low literacy. This may be consistant with this study's results that literacy level can be linked to oral functioning ability in a second language, although this remains to be further investigated with larger participant samples.

Secondly, the number of recasts per participant for the Spot-the-Difference task and Story Completion task varied from 1 to 12 total recasts per activity. Participants tended to repeatedly use formations which had been previously corrected or those which the participant seemed comfortable using. One participant (NN) prefaced many of the utterances across the different activities with "What do you say" often followed by a noun, as in "What do you say coffee?" This led to many of NN's utterances to be classified as "grammatical" in the Elicited Imitation task. It also meant that NN had fewer overall recasts in the other activities as correct question formations didn't necessarily

trigger a recast based on the methods and rating schema designed by Tarone, et al. (2009b).

Lastly, I collected much more data than I was able to analyze. For the Elicited Imitation task I controlled each question to include an equal number of question types which contained certain articles, prepositions, -ing, and same sounding –ed endings. This data could be further analyzed to investigate which types of errors are most common and/or the most difficult to notice in oral corrections for low-literate learners. I also did not fully analyze the impact of certain background characteristics collected in the interview portion of the session. The impacts of the education level of parents, total years of education, and native language were not fully examined in this study and could also have unknown influences on results.

Implications

Low-literacy ESOL students may not have sufficiently developed meta-linguistic awareness to process recasts of certain input. Thus oral recasts to support focused attention on morpho-syntactic changes may be an ineffective feedback strategy for low-literacy ESOL students. As demonstrated by the results of the story-completion task, the creation of high-context activities and approaches that use scaffolding to teach morpho-syntax to low-literacy adult ELLs are crucial and will be factored into my teaching. Building up from group or student pair oral discussions into text to help activate low-literacy learners' prior knowledge is a beneficial strategy for easing into literacy tasks (Tarone & Bigelow, 2005).

Vinogradov (2008) stresses the importance of contextual lessons to build literacy. By approaching subjects and topics that learners are already familiar with and interested in, the transition to text is more salient. Vinogradov emphasizes the need to start with a learner-generated topic of interest, transition to clear pictures and realia, then slowly progress into text to help learners uncover patterns and language rules collectively. However, this "top down" process should not be used to the exclusion of "bottom up" approaches which start with text and working towards meaning.

Bottom up approaches can help learners pay explicit and deliberate attention to "decoding skills, learning patterns of sounds, syllables and word families" (Vinogradov, 2008, p.3). Vinogradov encourages the use of the "whole-part-whole" methodology for teaching adult ESOL literacy students. By introducing whole concepts or topics, then focusing on discrete sounds, words or patterns, followed by returning to the topic to continue problems-solving or reflection activities, phonics-based instruction can be successfully integrated into my future contextual lesson plans.

Further Research

Several questions arose during the course of this study which would benefit from further research. A larger participant sample size would be beneficial to studying the following questions: Which parts of speech and morpho-syntactic changes were the most difficult to recall for adult ESOL low-learners? Is there a difference in accuracy between Moderate and Low Literacy groups in their recalls of prepositions, articles and verb

endings? How long does it take for an adult ELL to become moderately literate in a non-native language? Can low-literate adult ELLs achieve advanced oral proficiency levels in English using the ACTFL rating scale? How can researchers consistently elicit more question formations from each participant to provide richer recast data in the Spot-the-difference and Story-completion tasks? Lastly, which parts of speech are the most difficult to recall for low-literacy learners across the oral proficiency levels?

Conclusion

The results of this study will be shared with my research sites as well as with local teachers and administrators though conference presentations at Low Educated Low Literacy Second Language Learners (LESLLA) and MinneTESOL in an effort to improve awareness of this important segment of ESOL learners. Literacy is a powerful tool that can not only improve socio-economic level, rewire the mind, and initiate increased linguistic and processing capabilities, but it can also facilitate oral second-language fluency. More targeted instruction is increasingly needed in classrooms that are directed towards low-literate adult ELL's distinct oral processing strategies. This study was an effort to improve understanding of adult low literacy learners and the distinct difficulties they face while learning English. Hopefully researchers will continue to study experiences and best practices for this unique and important population of English Language Learners so that each student can attain the particular academic and economic successes that they desire.

Appendix A: Introductory Conversation Sample Questions

Questions
Can you tell me about yourself?
Where are you from? (city or country)
How many people lived in your town/ area of the city? Can you describe it to me?
Was there a school near your home? Did you have the opportunity to go to that school?
If yes: *What was the school like?* *How many students were in your class?* *How many students were in your school?* *What were the teachers like?* *What subjects did you study?* *What was it like when you were learning how to read and write?* *Did anyone physically help you individually?* *Did any of your family or friends help you with homework?*
If no: *Did anyone from your family go to that school?* *Who taught you the things that you know?* *How many languages do you speak?* *How did you learn X language or X occupation?* *How/when did you learn to read and write?*
Was your mother able to go to school? If yes, for how long? Was your father able to go to school? If yes, for how long?
How long have you studied English? What class are you in now?

Appendix B: Literacy Assessment

(Assessment and translations provided by Tarone, Bigelow and Hansen)

NATIVE LANGUAGE LITERACY SCREENING DEVICE (ENGLISH)

Dear Student:

Please fill out the form by yourself.

If you cannot answer all the questions, fill out the parts that you can and leave the rest of the form empty.

Thank you.

Today's Date: _____

Name: _____

Address: _____

_____

Telephone: _____

Date of Birth: _____

_____

1. Where were you born?

_____

2. In what year did you come to the United States?

_____

3. How many years did you go to school in your country?

_____

4. Have you attended English classes in the United States before now?

_____

5. Are you married?

_____

6. Do you have children?

_____

7. What language do you speak at home?

_____

8. Do you read any newspapers or magazines in (insert language of this questionnaire)?

_____

9. What kind of work do you do?

_____

10. What do you like to do when you have free time?

_____

Thank you for answering these questions.

_____

On the following pages are some stories about other students who came to school to learn English.

Please read the stories.

Story #1.

I am happy.

I feel like I am learning.

I am learning to speak English.

I am starting a new life in this country.

In school, my classmates and my teacher help me to learn.

Story #2.

My son speaks English.

He speaks English with his friends.

I speak to him in insert the language of this questionnaire.

He speaks to me in English.

Speaking English is very hard for me.

So now I come to this school to learn English.

Story #3.

I came to the United States in 1982.

I came to this school for adults, because I wanted to learn English. My first day at school, I felt nervous.

When I was a child, I couldn't go to school. I had to work to help my family.

My first day at this school for adults, I didn't know what to expect. But my teacher is very nice, and the other students are very nice. Now I don't feel nervous.

Story #4.

I am 25 years old. I have two daughters. I came to the United States, because I wanted a better life for my daughters. I want to get a good job.

Now I come to this school for adults. We practice English in the classroom. I try to practice English at home but that is not easy. All my friends speak insert the language of this questionnaire. Sometimes I watch English programs on television.

It's not easy to find time to come to school. I'm doing it for my daughters.

We hope you liked the stories about the students who came to school to learn English.

On the lines below, try to write something about yourself. Tell us why you want to learn English, or anything else you would like to tell us.

Appendix C: Literacy Rating Scale

Adapted from Tarone, Bigelow and Hansen (2009b)

RATING	NATIVE LANGUAGE
	Reading Fluency
1	Follows text with pen; much sub-vocalization; slow speed of reading; retraces/backtracks in text; much difficulty with comprehension; solicits researcher for help
2	Begins slowly then accelerates; shows some difficulty with decoding; may follow with pen or other finder and/or sub-vocalize; frequently reads twice and much faster the second time
3	Very comfortable reading; few sub-vocalizations; relatively quick speed; little difficulty with comprehension; may comment on perceived spelling errors in translation
	Writing
1	Is able to write in another language; is not able to or will not write in their native language
2	Writes with difficulty in their native language; may protest that they do not know how to spell; sub-vocalization; may solicit help
3	Writes in native language without any hesitation and few orthographic errors
	Confidence
1	Expresses reluctance to read or write in native language; may say they are unable to do it
2	Makes an effort, but is insecure about their skills; asks questions throughout
3	Approaches task without hesitation
RATING	**ENGLISH LANGUAGE**
	Reading Fluency
1	Follows text with pen; much sub-vocalization; slow speed of reading; retraces/backtracks in text; much difficulty with comprehension
2	Begins slowly then accelerates; shows some difficulty with decoding; may follow with pen or other finder and/or sub-vocalize
3	Very comfortable reading; few sub-vocalizations; relatively quick speed; little difficulty with comprehension
	Writing
1	Is able to write in native language; is not able to or will not write in English
2	Writes with difficulty in English; may protest that they do not know how to spell; sub-vocalization; may solicit help
3	Writes in English without any hesitation and few orthographic errors
	Confidence
1	Is unable/unwilling to attempt a single word
2	Makes an effort, but is insecure about their skills; asks questions throughout
3	Approaches task without hesitation

Appendix D: Oral Proficiency Interview

SUMMARY HIGHLIGHTS

ACTFL PROFICIENCY GUIDELINES—SPEAKING (REVISED 1999)

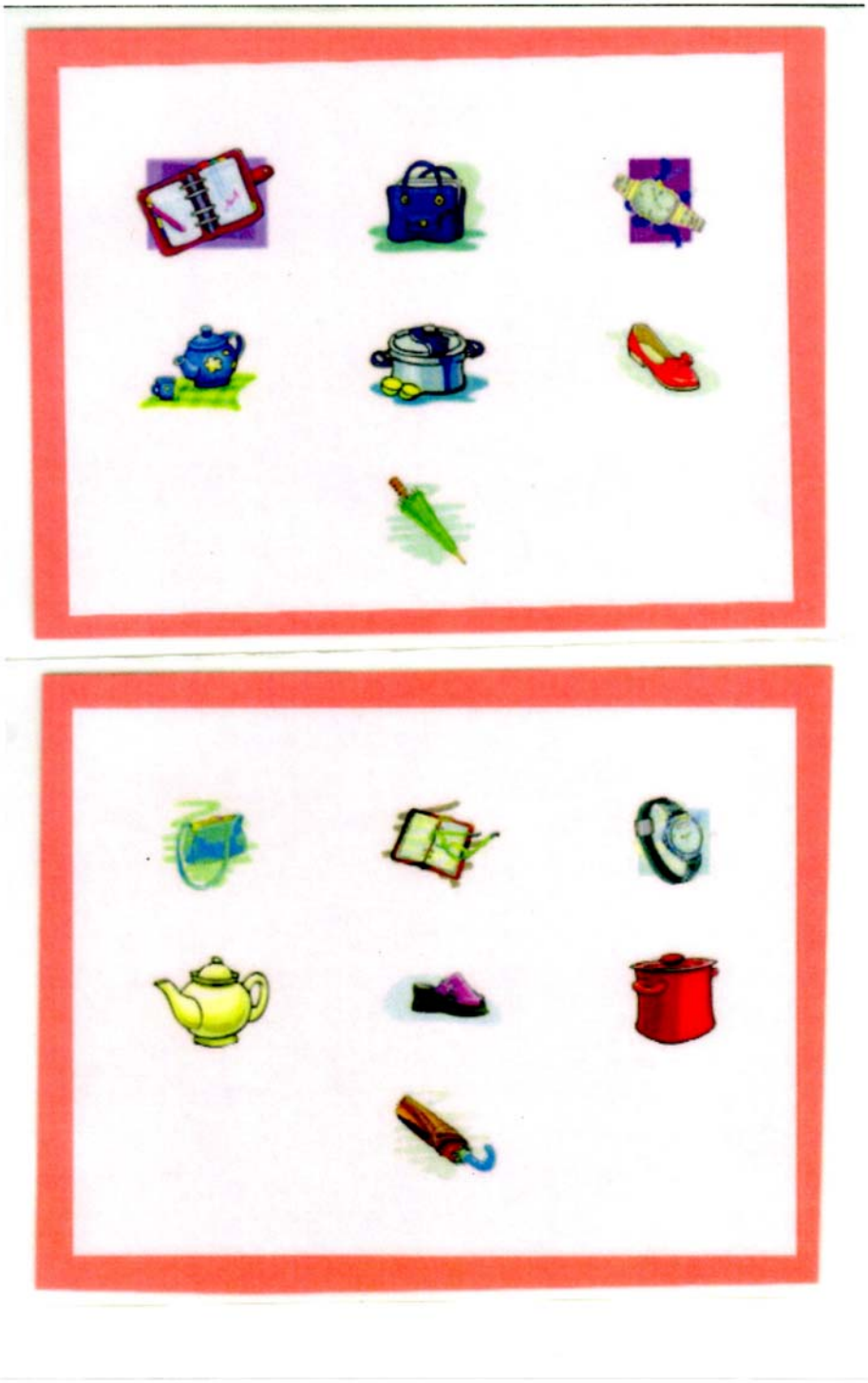
SUPERIOR	ADVANCED	INTERMEDIATE	NOVICE
Superior-level speakers are characterized by the ability to:	**Advanced-level speakers are characterized by the ability to:**	**Intermediate-level speakers are characterized by the ability to:**	**Novice-level speakers are characterized by the ability to:**
• participate fully and effectively in conversations in formal and informal settings on topics related to practical needs and areas of professional and/or scholarly interests	• participate actively in conversations in most informal and some formal settings on topics of personal and public interest	• participate in simple, direct conversations on generally predictable topics related to daily activities and personal environment	• respond to simple questions on the most common features of daily life
• provide a structured argument to explain and defend opinions and develop effective hypotheses within extended discourse	• narrate and describe in major time frames with good control of aspect	• create with the language and communicate personal meaning to sympathetic interlocutors by combining language elements in discrete sentences and strings of sentences	• convey minimal meaning to interlocutors experienced with dealing with foreigners by using isolated words, lists of words, memorized phrases and some personalized recombinations of words and phrases
• discuss topics concretely and abstractly	• deal effectively with unanticipated complications through a variety of communicative devices	• obtain and give information by asking and answering questions	• satisfy a very limited number of immediate needs
• deal with a linguistically unfamiliar situation	• sustain communication by using, with suitable accuracy and confidence, connected discourse of paragraph length and substance	• sustain and bring to a close a number of basic, uncomplicated communicative exchanges, often in a reactive mode	
• maintain a high degree of linguistic accuracy	• satisfy the demands of work and/or school situations	• satisfy simple personal needs and social demands to survive in the target language culture	
• satisfy the linguistic demands of professional and/or scholarly life			

© ACTFL, Inc., 1999

Appendix E: Elicited Imitation

Order	Pienneman's Stage of Question Acquisition	Elicited Imitation Question formation
1.	5	Where do I buy the best coffee?
2.	6	Why hasn't your friend come to class?
3	4	What is your new baby son named?
4.	5	What is the new drug store selling?
5.	4	Is she nice to the young children?
6.	6	Do you know where the teacher is?
7.	5	How do you get to the bus stop?
8.	6	They are coming today, aren't they?
9.	5	When will you be coming to school?
10.	4	Are the red apples a good price?
11.	6	She went to the nurse, didn't she?
12.	6	Who didn't they ask to the game?
13.	4	How are Tom's new friends from Roseville?
14.	5	When was the old blue car repaired?
15.	4	Have they opened the new store yet?
16.	6	Can you explain who she just called?
17.	5	Who will he live with in New York?
18.	5	What do they learn at the movies?
19.	4	Where are the kids going Friday?
20.	5	Why has she gone to the shoe store?
21.	6	Why isn't the child talking?
22.	4	Has she moved to a new house yet?
23.	6	Can you explain where the bank is?
24.	4	Are you starting a new job soon?
25.	5	Who cleaned all the dirty dishes?
26.	4	Has he taken the new test yet?
27.	6	She is learning fast, isn't she?
28.	6	Can you explain how it happened?

Appendix F: Spot-the-Difference Task



Appendix G: Story Completion

References

Bigelow, M., Delmas, R., Hansen, K. & Tarone, E. (2006). Literacy and the processing of oral recasts in SLA. *TESOL Quarterly, 40* (4), 665–689.

Carr-Hill, R. & Pessoa, J. (2008). *International literacy statistics: A review of concepts, methodology and current data*. Montreal: UNESCO Institute for Statistics.

Castro-Caldas, A. & Reis, A. (2000). Neurobiological substrates of illiteracy. *The Neuroscientist, 6*(6), 475–482.

Castro-Caldas, A., Reis, A. & Guerreiro, M. (1997). Neuropsychological aspects of illiteracy. *Neuropsychological Rehabilitation, 7*(4), 327–338.

Castro-Caldas, A., Petersson, K., Stone-Elander, S. & Ingvar, M. (1998). The illiterate brain: Learning to read and write during childhood influences the functional organization of the adult brain. *Brain, 121,* 1053–1063.

Cunningham, A. & Stanovich, K. (2001). What reading does for the mind. *Journal of Direct Instruction*, 1(2), 137–149.

Dörnyei, Z. (2007). *Research methods in applied linguistics: Quantitative, qualitative, and mixed methodologies.* Oxford University Press: USA.

Egi, T. (2010). Uptake, modified output, and learner perceptions of recasts: Learner responses as language awareness. *The Modern Language Journal, 94*(1),1–32.

Herriman, M. (1999). Literacy: Metalinguistic awareness. In B. Spolsky (Ed.), *Concise Encyclopedia of Educational Linguistics* (pp.166–169). Oxford: Pergamon.

Joy, J. (2000). Learning to read might not only open the mind but also reorganize the brain. *The Neuroscientist, 6*(6), 433–444.

Lightbown, P. & Spada, N. (1999). *How languages are learned.* New York: Oxford University Press.

Mackey, A. & Philp, J. (1998). Conversational interaction and second language development: Recasts, responses, and red herrings? *The Modern Langauge Journal, 82* (iii), 338–356.

Parrish, B. (2004). *Teaching adult ESOL: A practical introduction*. New York: McGraw-Hill.

Philp, J. (2003). Constrains on the "noticing gap": Nonnative speakers' noticing of recasts in ns-nns interaction. *Studies in Second Language Acquisition, 25*(1), 99–126.

Pienemann, M., Johnston, M. & Brindley, G. (1988). Constructing an acquisition-based procedure for second language assessment. *Studies in Second Language Acquisition, 10*, 217–243.

Reis, A., Faísca, L., Ingvar, M. & Petersson, K.M. (2006). Color makes a difference: Two-dimensional object naming by literate and illiterate subjects. *Brain and Cognition, 60*(1), 49–54.

Reis, A. & Castro-Caldas, A. (1997). Illiteracy: A cause for biased cognitive development. *Journal of the International Neuropsychological Society, 3*, 444–450.

Reis, A., Faísca, L., Mendonça S., Ingvar M. & Petersson K.M. (2007). Semantic interference on a phonological task in illiterate subjects. *Scandinavian Journal of Psychology, 48*, 69–74.

Schmidt, R. (1995). Consciousness and foreign language learning: A tutorial on the role of attention and awareness in learning, In R. Schmidt (Ed.), *Attention and awareness in foreign language learning (pp. 1–63).* Honolulu: University of Hawai'i Press.

Shaffer, B. (2010). *Overview of Adult Basic Education (ABE) in Minnesota – FY 2010.* Retrieved from http://mnabe.themlc.org/Adult_Basic_Education2.html

Tarone, E. & Bigelow, M. (2005). Impact of literacy on oral language processing: Implications for second language acquisition research. *Annual Review of Applied Linguistics, 25*, 77–97.

Tarone, E., Bigelow, M. & Hansen, K. (2009a). The impact of alphabetic print literacy level on oral second language acquisition. Retrieved from http://www.theliteracyinstitute.org/projects/pdf/LESOLLA%20Research6.pdf

Tarone, E., Bigelow, M. & Hansen, K. (2009b). *Literacy and second language oracy*. New York: Oxford University Press.

Vinogradov, P. (2008). "Maestra" The letters speak." Adult ESOL students learning to read for the first time. *MinneWITESOL Journal*, 25. Retrieved from http://minnetesol.org/journal/vol25_html_pages/5_Vinogradov._htm

Young-Scholten, M. & Strom, N. (2006) First-time L2 readers: Is there a critical period? Low-Educated Second Language and Literacy Acquisition: Proceedings of the Inaugural Symposium, Tilburg, The Netherlands. Retrieved October 15, 2009 from http://lotos.library.uu.nl/publish/articles/000171/bookpart.pdf